

Design Settings

Rainfall Methodology	FSR	Maximum Time of Concentration (mins)	30.00
Return Period (years)	1	Maximum Rainfall (mm/hr)	50.0
Additional Flow (%)	0	Minimum Velocity (m/s)	1.00
FSR Region	England and Wales	Connection Type	Level Soffits
M5-60 (mm)	20.000	Minimum Backdrop Height (m)	0.200
Ratio-R	0.400	Preferred Cover Depth (m)	1.200
CV	0.750	Include Intermediate Ground	✓
Time of Entry (mins)	5.00	Enforce best practice design rules	x

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
1		5.00	13.246	1500	445375.421	117823.073	2.053
2	0.084	5.00	12.830	1500	445391.479	117881.060	1.757
3			12.890	1500	445395.002	117925.348	1.906
4	0.234	5.00	13.118	1500	445408.902	117953.928	2.198
5			13.462	1500	445448.416	117985.815	2.644
6			13.663	1500	445487.528	117995.955	2.926
7	0.175	5.00	12.683	2100	445545.231	117995.708	2.661
9			13.030	2100	445842.262	117807.533	4.930
10			13.600	2100	445767.139	117857.098	5.700
11	0.237	5.00	12.191	2100	445698.429	117902.072	4.496
12			9.947	2100	445623.955	117952.873	2.700
Pump			10.000	2100	445628.458	117956.484	2.482
14	0.450	5.00	12.795	2100	445917.384	117757.969	4.495
15			11.600	1350	445993.768	117711.796	1.800
16			11.327	1350	446028.978	117701.561	1.600
17			12.488	1350	446097.026	117699.860	2.897
22			11.800	1350	446219.724	117753.634	2.503
23			11.454	1350	446247.177	117721.797	2.261
20	0.239	5.00	13.425	1350	446149.440	117721.654	3.948
21			12.924	1350	446185.262	117752.575	3.542
24			11.367	1500	446294.481	117706.341	2.426
25			10.800	1500	446294.744	117694.552	1.829
Unit 3 Pond	1.710	5.00	10.800		446294.871	117681.306	1.800
26			11.323	1500	446331.672	117725.585	2.467
27			11.630	1350	446295.451	117730.103	1.715
Unit 1 Tank	0.780	5.00	11.630		446274.635	117732.616	1.575
28			11.416	1800	446342.375	117756.252	3.012
29			11.330	1800	446403.913	117815.897	3.097
30			11.379	1800	446431.834	117843.324	3.224
Northern Pond			11.130		446493.000	117813.500	3.222
31			11.130	1500	446508.431	117795.541	3.275
Outfall			9.000	1200	446537.863	117795.785	1.318
Unit 2 Tank	1.100	5.00	11.445		446304.035	117917.919	1.650
32			11.445	1350	446248.589	117868.284	1.833
33			11.445	1350	446271.449	117829.320	1.945

Simulation Settings

Rainfall Methodology	FSR	Analysis Speed	Normal
Rainfall Events	Singular	Skip Steady State	x
FSR Region	England and Wales	Drain Down Time (mins)	240
M5-60 (mm)	20.000	Additional Storage (m ³ /ha)	0.0
Ratio-R	0.400	Starting Level (m)	
Summer CV	0.750	Check Discharge Rate(s)	x
Winter CV	0.840	Check Discharge Volume	x

Storm Durations

15 | 30 | 60 | 120 | 180 | 240 | 360 | 480 | 600 | 720 | 960 | 1440

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
1	0	0	0
30	25	0	0
100	0	0	0
100	25	0	0

Node Pump Online Pump Control

Flap Valve	x	Design Depth (m)	5.000	Switch off depth (m)	0.050
Replaces Downstream Link	✓	Design Flow (l/s)	7.0		
Invert Level (m)	7.518	Switch on depth (m)	0.100		

Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)
0.100	7.000	5.000	7.000

Node 25 Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	x	Sump Available	✓
Invert Level (m)	8.971	Product Number	CTL-SHE-0094-5000-1800-5000
Design Depth (m)	1.800	Min Outlet Diameter (m)	0.150
Design Flow (l/s)	5.0	Min Node Diameter (mm)	1200

Node 33 Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	x	Sump Available	✓
Invert Level (m)	9.500	Product Number	CTL-SHE-0093-5000-1900-5000
Design Depth (m)	1.900	Min Outlet Diameter (m)	0.150
Design Flow (l/s)	5.0	Min Node Diameter (mm)	1200

Node 31 Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	x	Sump Available	✓
Invert Level (m)	7.855	Product Number	CTL-SHE-0137-1330-3000-1330
Design Depth (m)	3.000	Min Outlet Diameter (m)	0.150
Design Flow (l/s)	13.3	Min Node Diameter (mm)	1500

Node 27 Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	x	Sump Available	✓
Invert Level (m)	9.915	Product Number	CTL-SHE-0095-5000-1700-5000
Design Depth (m)	1.700	Min Outlet Diameter (m)	0.150
Design Flow (l/s)	5.0	Min Node Diameter (mm)	1200

Node Unit 3 Pond Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	9.000
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	258.0	258.0	1.800	1140.0	1154.2

Node Unit 1 Tank Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	10.055
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.95	Time to half empty (mins)	

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	829.0	829.0	0.800	829.0	910.7	0.801	0.0	910.7

Node Northern Pond Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	7.908
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	546.0	546.0	2.925	1100.0	1172.8

Node Unit 2 Tank Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	9.795
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.95	Time to half empty (mins)	

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	1015.0	1015.0	0.800	1015.0	1105.3	0.801	0.0	1105.3

Results for 1 year Critical Storm Duration. Lowest mass balance: 98.94%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	1	11.193	0.000	0.0	0.0000	0.0000	OK
15 minute winter	2	11	11.150	0.077	11.7	0.1352	0.0000	OK
15 minute winter	3	12	11.078	0.094	11.1	0.1658	0.0000	OK
15 minute winter	4	11	11.071	0.150	41.3	0.2659	0.0000	OK
15 minute winter	5	12	10.967	0.149	40.3	0.2637	0.0000	OK
15 minute winter	6	14	10.881	0.144	39.7	0.2539	0.0000	OK
15 minute winter	7	13	10.093	0.071	50.6	0.2459	0.0000	OK
15 minute winter	9	12	8.242	0.142	62.9	0.4917	0.0000	OK
180 minute winter	10	164	8.098	0.198	15.5	0.6860	0.0000	OK
180 minute winter	11	176	8.099	0.404	23.5	1.3985	0.0000	OK
180 minute winter	12	172	8.099	0.852	33.2	2.9507	0.0000	OK
180 minute winter	Pump	172	8.099	0.581	9.3	2.0124	0.0000	SURCHARGED
15 minute winter	14	10	8.445	0.145	63.2	0.5028	0.0000	OK
15 minute winter	15	13	9.873	0.073	7.0	0.1038	0.0000	OK
60 minute summer	16	35	9.797	0.070	7.4	0.1003	0.0000	OK
15 minute summer	17	24	9.658	0.067	7.2	0.0963	0.0000	OK
15 minute winter	22	12	9.430	0.133	29.9	0.1909	0.0000	OK
15 minute winter	23	13	9.312	0.119	29.4	0.1698	0.0000	OK
15 minute winter	20	11	9.620	0.143	33.5	0.2048	0.0000	OK
15 minute winter	21	11	9.518	0.136	30.4	0.1942	0.0000	OK
15 minute winter	24	14	9.081	0.140	32.2	0.2469	0.0000	OK
480 minute winter	25	456	9.595	0.624	4.7	1.1025	0.0000	SURCHARGED
480 minute winter	Unit 3 Pond	456	9.595	0.595	29.6	240.2195	0.0000	OK
15 minute winter	26	15	8.995	0.139	35.3	0.2462	0.0000	OK
240 minute winter	27	220	10.174	0.259	5.5	0.3711	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	1	1.000	2	0.0	0.000	0.6079	
15 minute winter	2	1.001	3	11.1	0.476	1.0804	
15 minute winter	3	1.002	4	12.1	0.356	1.3195	
15 minute winter	4	1.003	5	40.3	0.761	2.7482	
15 minute winter	5	1.004	6	39.7	0.784	2.1141	
15 minute winter	6	1.005	7	37.4	0.811	2.6657	
15 minute winter	7	1.006	12	50.7	1.763	14.2288	
15 minute winter	9	2.001	10	59.3	0.933	5.9601	
180 minute winter	10	2.002	11	15.5	0.469	21.1796	
180 minute winter	11	2.003	12	19.2	0.183	63.4047	
180 minute winter	12	1.007	Pump	9.3	0.242	7.8479	
180 minute winter	Pump	Pump	15	7.0			
15 minute winter	14	2.000	9	62.9	0.859	6.7010	
15 minute winter	15	1.009	16	7.5	0.792	0.5584	
60 minute summer	16	1.010	17	7.2	0.660	1.0042	
15 minute summer	17	1.011	20	7.1	0.473	1.2665	
15 minute winter	22	1.014	23	29.4	0.862	1.5128	
15 minute winter	23	1.015	24	28.3	0.877	1.6139	
15 minute winter	20	1.012	21	30.4	0.734	1.9760	
15 minute winter	21	1.013	22	29.9	0.766	1.3661	
15 minute winter	24	1.016	26	32.3	0.736	1.8996	
480 minute winter	25	3.001	24	4.4	0.384	0.3363	
480 minute winter	Unit 3 Pond	3.000	25	4.7	0.126	4.2225	
15 minute winter	26	1.017	28	34.7	0.835	1.3528	
240 minute winter	27	4.001	26	4.2	0.483	0.3176	

Results for 1 year Critical Storm Duration. Lowest mass balance: 98.94%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
360 minute winter	Unit 1 Tank	272	10.172	0.117	16.8	92.2111	0.0000	OK
1440 minute winter	28	1440	8.573	0.169	21.4	0.4311	0.0000	OK
1440 minute winter	29	1440	8.573	0.340	21.4	0.8658	0.0000	OK
1440 minute winter	30	1440	8.573	0.418	21.4	1.0644	0.0000	OK
1440 minute winter	Northern Pond	1440	8.573	0.665	21.3	404.9927	0.0000	SURCHARGED
1440 minute winter	31	1440	8.573	0.718	11.0	1.2686	0.0000	SURCHARGED
960 minute winter	Outfall	945	7.762	0.080	11.0	0.0000	0.0000	OK
480 minute winter	Unit 2 Tank	376	9.933	0.138	19.1	132.7556	0.0000	OK
360 minute winter	32	280	9.933	0.321	11.2	0.4592	0.0000	OK
360 minute winter	33	280	9.933	0.433	6.1	0.6196	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Link Vol (m³)	Discharge Vol (m³)
360 minute winter	Unit 1 Tank	4.000	27	4.9	0.419	0.8685	
1440 minute winter	28	1.018	29	21.4	0.605	12.9369	
1440 minute winter	29	1.019	30	21.4	0.545	9.9372	
1440 minute winter	30	1.020	Northern Pond	21.3	0.679	12.6050	
1440 minute winter	Northern Pond	1.021	31	11.0	0.121	6.6696	
1440 minute winter	31	1.022	Outfall	11.0	0.850	0.3816	783.0
480 minute winter	Unit 2 Tank	5.000	32	9.4	0.440	6.0231	
360 minute winter	32	5.001	33	6.1	0.161	6.2674	
360 minute winter	33	5.002	28	4.3	0.621	0.7024	

Results for 30 year +25% CC Critical Storm Duration. Lowest mass balance: 99.34%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	1	13	11.221	0.028	2.0	0.0490	0.0000	OK
15 minute winter	2	11	11.215	0.142	35.9	0.2513	0.0000	OK
15 minute winter	3	11	11.203	0.219	29.7	0.3867	0.0000	OK
15 minute winter	4	11	11.196	0.276	124.3	0.4872	0.0000	OK
15 minute winter	5	12	11.091	0.273	123.5	0.4832	0.0000	OK
15 minute winter	6	13	10.999	0.262	121.0	0.4633	0.0000	OK
15 minute winter	7	12	10.148	0.126	174.6	0.4374	0.0000	OK
360 minute winter	9	352	8.809	0.709	26.5	2.4558	0.0000	OK
360 minute winter	10	352	8.810	0.910	21.8	3.1509	0.0000	OK
360 minute winter	11	352	8.809	1.114	27.8	3.8581	0.0000	OK
360 minute winter	12	352	8.807	1.560	33.8	5.4047	0.0000	SURCHARGED
360 minute winter	Pump	352	8.806	1.288	18.6	4.4602	0.0000	SURCHARGED
360 minute winter	14	360	8.809	0.509	26.6	1.7646	0.0000	OK
15 minute winter	15	10	9.875	0.075	7.0	0.1070	0.0000	OK
60 minute winter	16	23	9.797	0.070	7.1	0.1004	0.0000	OK
15 minute winter	17	12	9.762	0.171	17.0	0.2448	0.0000	OK
15 minute winter	22	13	9.541	0.244	86.8	0.3497	0.0000	OK
15 minute winter	23	14	9.410	0.217	86.6	0.3112	0.0000	OK
15 minute winter	20	12	9.741	0.264	102.9	0.3778	0.0000	OK
15 minute winter	21	13	9.633	0.251	87.6	0.3591	0.0000	OK
1440 minute winter	24	1680	9.202	0.261	15.5	0.4609	0.0000	OK
960 minute winter	25	945	10.413	1.442	4.7	2.5475	0.0000	SURCHARGED
960 minute winter	Unit 3 Pond	945	10.413	1.413	47.0	853.4702	0.0000	SURCHARGED
1440 minute winter	26	1680	9.201	0.345	19.9	0.6104	0.0000	OK
480 minute winter	27	464	10.459	0.544	5.0	0.7791	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	1	1.000	2	-2.0	-0.095	1.6319	
15 minute winter	2	1.001	3	29.7	0.507	3.1965	
15 minute winter	3	1.002	4	36.4	0.436	3.4844	
15 minute winter	4	1.003	5	123.5	0.998	6.3229	
15 minute winter	5	1.004	6	121.0	1.028	4.9064	
15 minute winter	6	1.005	7	118.7	1.120	6.1205	
15 minute winter	7	1.006	12	174.1	2.001	36.6357	
360 minute winter	9	2.001	10	21.8	0.552	72.4688	
360 minute winter	10	2.002	11	12.7	0.384	103.4950	
360 minute winter	11	2.003	12	-14.8	0.171	142.5701	
360 minute winter	12	1.007	Pump	18.2	0.148	16.9006	
360 minute winter	Pump	Pump	15	7.0			
360 minute winter	14	2.000	9	26.5	0.613	51.6843	
15 minute winter	15	1.009	16	7.6	0.821	0.5464	
60 minute winter	16	1.010	17	7.2	0.652	1.3373	
15 minute winter	17	1.011	20	17.1	0.471	4.3120	
15 minute winter	22	1.014	23	86.6	1.063	3.4306	
15 minute winter	23	1.015	24	86.0	1.183	3.6159	
15 minute winter	20	1.012	21	87.6	0.937	4.4309	
15 minute winter	21	1.013	22	86.8	0.976	3.0818	
1440 minute winter	24	1.016	26	15.5	0.548	5.3950	
960 minute winter	25	3.001	24	4.4	0.289	0.3656	
960 minute winter	Unit 3 Pond	3.000	25	4.7	0.111	4.2252	
1440 minute winter	26	1.017	28	19.9	0.712	5.4681	
480 minute winter	27	4.001	26	4.6	0.497	0.3364	

Results for 30 year +25% CC Critical Storm Duration. Lowest mass balance: 99.34%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
480 minute winter	Unit 1 Tank	464	10.460	0.405	36.8	318.6042	0.0000	SURCHARGED
1440 minute winter	28	1680	9.201	0.797	24.1	2.0285	0.0000	OK
1440 minute winter	29	1680	9.201	0.968	24.1	2.4635	0.0000	SURCHARGED
1440 minute winter	30	1680	9.201	1.046	23.3	2.6619	0.0000	SURCHARGED
1440 minute winter	Northern Pond	1680	9.200	1.292	22.7	863.1536	0.0000	SURCHARGED
1440 minute winter	31	1680	9.199	1.344	11.0	2.3757	0.0000	SURCHARGED
360 minute summer	Outfall	600	7.762	0.080	11.0	0.0000	0.0000	OK
720 minute winter	Unit 2 Tank	705	10.300	0.505	37.7	487.1232	0.0000	SURCHARGED
720 minute winter	32	705	10.300	0.688	7.4	0.9846	0.0000	SURCHARGED
720 minute winter	33	705	10.300	0.800	5.1	1.1448	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Link Vol (m³)	Discharge Vol (m³)
480 minute winter	Unit 1 Tank	4.000	27	5.0	0.412	2.3126	
1440 minute winter	28	1.018	29	24.1	0.617	52.6039	
1440 minute winter	29	1.019	30	23.3	0.548	24.8053	
1440 minute winter	30	1.020	Northern Pond	22.7	0.664	13.3112	
1440 minute winter	Northern Pond	1.021	31	11.0	0.127	6.6696	
1440 minute winter	31	1.022	Outfall	11.0	0.850	0.3816	866.2
720 minute winter	Unit 2 Tank	5.000	32	7.4	0.419	11.7909	
720 minute winter	32	5.001	33	5.1	0.147	7.1577	
720 minute winter	33	5.002	28	4.3	0.621	0.7025	

Results for 100 year Critical Storm Duration. Lowest mass balance: 99.35%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	1	13	11.227	0.034	2.5	0.0598	0.0000	OK
15 minute winter	2	12	11.220	0.147	37.3	0.2596	0.0000	OK
15 minute winter	3	11	11.208	0.224	30.3	0.3963	0.0000	OK
15 minute winter	4	11	11.201	0.281	128.5	0.4967	0.0000	OK
15 minute winter	5	12	11.097	0.279	127.5	0.4928	0.0000	OK
15 minute winter	6	13	11.004	0.267	125.0	0.4719	0.0000	OK
15 minute winter	7	12	10.151	0.129	181.3	0.4456	0.0000	OK
360 minute winter	9	360	8.860	0.760	27.5	2.6332	0.0000	OK
360 minute winter	10	352	8.860	0.960	25.6	3.3243	0.0000	OK
360 minute winter	11	352	8.859	1.164	27.1	4.0323	0.0000	OK
360 minute winter	12	360	8.858	1.611	37.4	5.5804	0.0000	SURCHARGED
360 minute winter	Pump	360	8.856	1.338	15.3	4.6352	0.0000	SURCHARGED
360 minute winter	14	352	8.862	0.562	27.6	1.9464	0.0000	OK
15 minute winter	15	10	9.875	0.075	7.0	0.1075	0.0000	OK
60 minute winter	16	23	9.797	0.070	7.4	0.1004	0.0000	OK
15 minute winter	17	12	9.769	0.178	17.8	0.2543	0.0000	OK
15 minute winter	22	13	9.548	0.251	90.5	0.3588	0.0000	OK
15 minute winter	23	14	9.416	0.223	90.3	0.3187	0.0000	OK
15 minute winter	20	12	9.749	0.272	106.8	0.3886	0.0000	OK
15 minute winter	21	13	9.640	0.258	91.5	0.3688	0.0000	OK
1440 minute winter	24	1680	9.207	0.266	15.5	0.4692	0.0000	OK
960 minute winter	25	945	10.436	1.465	4.7	2.5887	0.0000	SURCHARGED
960 minute winter	Unit 3 Pond	945	10.436	1.436	48.0	875.7485	0.0000	SURCHARGED
1440 minute winter	26	1680	9.206	0.350	20.0	0.6187	0.0000	OK
480 minute winter	27	464	10.476	0.561	4.8	0.8031	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	1	1.000	2	-2.5	-0.111	1.7492	
15 minute winter	2	1.001	3	30.3	0.509	3.3193	
15 minute winter	3	1.002	4	37.7	0.444	3.5846	
15 minute winter	4	1.003	5	127.5	1.007	6.4848	
15 minute winter	5	1.004	6	125.0	1.035	5.0334	
15 minute winter	6	1.005	7	122.8	1.132	6.2675	
15 minute winter	7	1.006	12	181.0	2.029	37.8981	
360 minute winter	9	2.001	10	22.7	0.544	77.3328	
360 minute winter	10	2.002	11	14.5	0.389	109.1155	
360 minute winter	11	2.003	12	-15.7	0.177	145.4673	
360 minute winter	12	1.007	Pump	15.3	0.293	16.9006	
360 minute winter	Pump	Pump	15	7.0			
360 minute winter	14	2.000	9	27.5	0.620	57.1213	
15 minute winter	15	1.009	16	7.5	0.836	0.5464	
60 minute winter	16	1.010	17	7.2	0.650	1.4029	
15 minute winter	17	1.011	20	17.6	0.471	4.4875	
15 minute winter	22	1.014	23	90.3	1.073	3.5403	
15 minute winter	23	1.015	24	89.5	1.197	3.7235	
15 minute winter	20	1.012	21	91.5	0.946	4.5789	
15 minute winter	21	1.013	22	90.5	0.985	3.1827	
1440 minute winter	24	1.016	26	15.5	0.549	5.4953	
960 minute winter	25	3.001	24	4.5	0.289	0.3688	
960 minute winter	Unit 3 Pond	3.000	25	4.7	0.101	4.2252	
1440 minute winter	26	1.017	28	20.0	0.713	5.5378	
480 minute winter	27	4.001	26	4.6	0.497	0.3364	

Results for 100 year Critical Storm Duration. Lowest mass balance: 99.35%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
480 minute winter	Unit 1 Tank	464	10.476	0.421	38.0	331.8235	0.0000	SURCHARGED
1440 minute winter	28	1680	9.206	0.802	24.2	2.0405	0.0000	OK
1440 minute winter	29	1680	9.206	0.973	24.2	2.4755	0.0000	SURCHARGED
1440 minute winter	30	1680	9.206	1.051	23.3	2.6738	0.0000	SURCHARGED
1440 minute winter	Northern Pond	1680	9.204	1.296	22.7	866.8725	0.0000	SURCHARGED
1440 minute winter	31	1680	9.204	1.349	11.0	2.3840	0.0000	SURCHARGED
360 minute summer	Outfall	584	7.762	0.080	11.0	0.0000	0.0000	OK
720 minute winter	Unit 2 Tank	705	10.319	0.524	38.7	504.8086	0.0000	SURCHARGED
720 minute winter	32	705	10.318	0.706	7.7	1.0108	0.0000	SURCHARGED
720 minute winter	33	705	10.318	0.818	5.2	1.1709	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Link Vol (m³)	Discharge Vol (m³)
480 minute winter	Unit 1 Tank	4.000	27	4.8	0.415	2.3126	
1440 minute winter	28	1.018	29	24.2	0.617	52.7170	
1440 minute winter	29	1.019	30	23.3	0.549	24.8053	
1440 minute winter	30	1.020	Northern Pond	22.7	0.666	13.3112	
1440 minute winter	Northern Pond	1.021	31	11.0	0.124	6.6696	
1440 minute winter	31	1.022	Outfall	11.0	0.850	0.3816	867.2
720 minute winter	Unit 2 Tank	5.000	32	7.7	0.425	11.7909	
720 minute winter	32	5.001	33	5.2	0.147	7.1577	
720 minute winter	33	5.002	28	4.3	0.621	0.7025	

Results for 100 year +25% CC Critical Storm Duration. Lowest mass balance: 99.49%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	1	13	11.266	0.073	6.8	0.1295	0.0000	OK
15 minute winter	2	12	11.253	0.180	46.7	0.3184	0.0000	OK
15 minute winter	3	11	11.243	0.259	37.6	0.4571	0.0000	OK
15 minute winter	4	11	11.237	0.317	156.5	0.5598	0.0000	OK
15 minute winter	5	12	11.132	0.314	154.5	0.5547	0.0000	OK
15 minute winter	6	12	11.036	0.299	151.7	0.5278	0.0000	OK
15 minute winter	7	12	10.164	0.142	224.5	0.4935	0.0000	OK
480 minute winter	9	472	9.719	1.619	25.4	5.6081	0.0000	SURCHARGED
480 minute winter	10	472	9.721	1.821	21.7	6.3065	0.0000	SURCHARGED
480 minute winter	11	472	9.722	2.027	29.7	7.0202	0.0000	SURCHARGED
480 minute winter	12	472	9.723	2.476	30.0	8.5774	0.0000	FLOOD RISK
480 minute winter	Pump	472	9.723	2.205	15.7	7.6373	0.0000	FLOOD RISK
480 minute winter	14	472	9.719	1.419	27.4	4.9141	0.0000	SURCHARGED
15 minute summer	15	10	9.875	0.075	7.0	0.1073	0.0000	OK
15 minute winter	16	13	9.829	0.102	11.5	0.1463	0.0000	OK
15 minute winter	17	12	9.801	0.210	23.4	0.2999	0.0000	OK
15 minute winter	22	13	9.581	0.284	111.8	0.4059	0.0000	OK
15 minute winter	23	13	9.446	0.253	110.2	0.3622	0.0000	OK
15 minute winter	20	12	9.788	0.311	133.7	0.4446	0.0000	OK
15 minute winter	21	12	9.679	0.297	112.1	0.4254	0.0000	OK
1440 minute winter	24	1680	9.296	0.355	17.0	0.6268	0.0000	OK
1440 minute winter	25	1410	10.693	1.722	4.8	3.0428	0.0000	FLOOD RISK
1440 minute winter	Unit 3 Pond	1410	10.693	1.693	43.2	1139.0660	0.0000	FLOOD RISK
1440 minute winter	26	1680	9.296	0.440	21.6	0.7766	0.0000	OK
480 minute winter	27	472	10.610	0.695	5.0	0.9941	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	1	1.000	2	-6.8	-0.186	2.7048	
15 minute winter	2	1.001	3	37.6	0.523	4.1582	
15 minute winter	3	1.002	4	47.9	0.488	4.2451	
15 minute winter	4	1.003	5	154.5	1.051	7.5390	
15 minute winter	5	1.004	6	151.7	1.084	5.8441	
15 minute winter	6	1.005	7	149.5	1.197	7.2082	
15 minute winter	7	1.006	12	225.1	1.907	43.5303	
480 minute winter	9	2.001	10	18.3	0.506	101.4365	
480 minute winter	10	2.002	11	-13.1	0.383	144.6219	
480 minute winter	11	2.003	12	-18.7	0.172	158.7093	
480 minute winter	12	1.007	Pump	15.1	0.161	16.9006	
480 minute winter	Pump	Pump	15	7.0			
480 minute winter	14	2.000	9	25.4	0.582	101.4027	
15 minute summer	15	1.009	16	7.5	0.840	0.6978	
15 minute winter	16	1.010	17	11.9	0.476	3.2966	
15 minute winter	17	1.011	20	27.3	0.471	5.3657	
15 minute winter	22	1.014	23	110.2	1.130	4.1419	
15 minute winter	23	1.015	24	109.1	1.266	4.3131	
15 minute winter	20	1.012	21	112.1	0.997	5.3916	
15 minute winter	21	1.013	22	111.8	1.034	3.7295	
1440 minute winter	24	1.016	26	17.0	0.565	7.2938	
1440 minute winter	25	3.001	24	4.8	0.272	2.4681	
1440 minute winter	Unit 3 Pond	3.000	25	4.8	0.106	4.2252	
1440 minute winter	26	1.017	28	21.5	0.730	6.6305	
480 minute winter	27	4.001	26	4.6	0.497	0.3363	

Results for 100 year +25% CC Critical Storm Duration. Lowest mass balance: 99.49%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
480 minute winter	Unit 1 Tank	472	10.610	0.555	47.5	436.9606	0.0000	SURCHARGED
1440 minute winter	28	1680	9.295	0.891	25.7	2.2680	0.0000	OK
1440 minute winter	29	1680	9.295	1.062	25.1	2.7030	0.0000	SURCHARGED
1440 minute winter	30	1680	9.295	1.140	24.2	2.9014	0.0000	SURCHARGED
1440 minute winter	Northern Pond	1680	9.294	1.386	23.5	938.3951	0.0000	SURCHARGED
1440 minute winter	31	1680	9.294	1.439	11.0	2.5420	0.0000	SURCHARGED
360 minute summer	Outfall	536	7.762	0.080	11.0	0.0000	0.0000	OK
960 minute winter	Unit 2 Tank	945	10.493	0.698	38.6	672.7698	0.0000	SURCHARGED
960 minute winter	32	945	10.493	0.881	6.6	1.2602	0.0000	SURCHARGED
960 minute winter	33	945	10.493	0.993	4.9	1.4203	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Link Vol (m³)	Discharge Vol (m³)
480 minute winter	Unit 1 Tank	4.000	27	5.0	0.416	2.3126	
1440 minute winter	28	1.018	29	25.1	0.615	54.2776	
1440 minute winter	29	1.019	30	24.2	0.550	24.8053	
1440 minute winter	30	1.020	Northern Pond	23.5	0.677	13.3112	
1440 minute winter	Northern Pond	1.021	31	11.0	0.121	6.6696	
1440 minute winter	31	1.022	Outfall	11.0	0.850	0.3816	875.7
960 minute winter	Unit 2 Tank	5.000	32	6.6	0.427	11.7909	
960 minute winter	32	5.001	33	4.9	0.147	7.1577	
960 minute winter	33	5.002	28	4.3	0.621	2.8556	